

ABSTRACT OF THE DISCLOSURE

An electric charge transfer apparatus comprises a plurality of vertical charge transfer devices, each of which transfers a signal electric charge, a plurality of charge-discharging circuits formed next to each
5 vertical transfer device, each charge-discharging circuit discharging the signal electric charge transferred by at least either one of the adjoining vertical transfer devices, and an output circuit that outputs the signal electric charge transferred by the vertical charge transfer devices to an outside of the electric charge transfer apparatus. Appearance of a
10 longitudinal line caused by left-behind electric charge which causes an electric potential barrier or an electric potential unevenness which exists in a transfer channel of a vertical electric charge transfer device included in an charge-discharging device with probability can be controlled.

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